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On coming

From: "Lantz Indergard" <LIndergard@lisbonvalley.com>
To: <bethericksen@utah.gov>
Date: 05/23/2008 10:13 AM
Subject: Response to Comments
Attachments: Response to Comments 5-21-08.doc; Final POO Cessationlmi.doc; 2008 Final Bond Estimate DOGM rev1.xls; Dump C Steep Slopes.tif

CC: <susanwhite@utah.gov>, <paulbaker@utah.gov>, <Rebecca_Doolittle@blm.gov>
Hello Beth:

Response to the Division's letter, dated May 2, should be in this morning's UPS to Susan. Please check for this package. It includes:

1. Response to Comments Letter
2. Revised POO
3. Revised Fig 1-4
4. Revised Table 1 and Unit Costs Evaluation Worksheet
5. Small-scale topo of Waste Dump C
6. Photos of hilfiker wall

Electronic versions of all are attached except Fig1-4 and photos due to file size. Plan to deliver hard copy to BLM this afternoon.

I'll be submerged in TRI reporting thru next week, and will be at my desk to answer any questions you may have. Thank you for your attention to this response.

Lantz M Indergard PG

Environmental Manager

Lisbon Valley Mining Co LLC

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480001



Ms. Susan White
Utah Division of Oil, Gas, & Mining
1594 West North Temple Suite 1210
Salt Lake City, UT 84114-5801

May 21, 2008

Mr. Lynn Jackson
US Bureau of Land Management
82 East Dogwood
Moab , Utah, 84532

Re: Revised Mine Plan and Bond Adjustment Request. Lisbon Valley Mining Company LLC. 920 South County Road 313, La Sal, Utah, 84530.

Dear Susan and Lynn:

The Lisbon Valley Mining Co LLC (LVMC) respectfully submits this response to our second Plan of Operations (POO) revision and bond adjustment request submitted April 15, 2008, and follow up correspondence, dated April 25, 2008. Our response is formatted in accordance with the Division's comments received May 6, 2008.

Attachments to this response include:

1. Plan of Operations (POO) Rev.3
2. Fig 1-4
3. Table 1
4. Unit Costs Evaluation Worksheet
5. Small-scale topo of Waste Dump C
6. Photographs of the hilfiker wall

Safety Fences/Berms around Pits

Fence Cost

1.50/ft is the escalated labor rate for 4-strand barbed wire fencing using local rancher. LVMC has been using this contractor for 3 yrs. Materials are stockpiled on-site.

Fence Design

4-strand barb wire fence is the common design on private, State, and BLM lands in Lisbon Valley.¹

Berm Design

Safety berms are constructed using selected local fill containing boulders with objective to prevent public access using vehicles. Design berm height is 4 feet on flat grades. There are two locations where berms are planned to prevent public access to the Sentinel West Pit from jeep roads on top of the east rim of Lisbon Valley. These are shown on Fig 1-4. Berms will be approx 75 in length. This comprises <100 yds of fill, and there is plenty of rocky scrub at these locations. No plans to revegetate the berms due to the rock content.

Present Fencing and Berms Configuration

Fencing and cattle guards are presently in place preventing cattle and public access to both Centennial and GTO pits. Berms also exist around the Centennial Pit as part of the existing haul roads. The present fencing configuration was jointly developed in consultation with Wilcox Ranches, and was approved by the BLM prior to construction. Its configuration was designed with two objectives, 1) keep cattle off of reseeded areas and 2) prevent public access using vehicles. The present fencing and berms configuration has been added to Fig 1-4 (attached).

Final Fencing Configuration

The final fencing configuration will add fencing and berms around the Sentinel Pits. The objective is to prevent public access using vehicles. Fences will be tied to the rimrock on both sides of the pits at rugged locations, preventing vehicle access. Two remote jeep roads will be bermed on top of the valley rim east of the Sentinel West Pit. Additional signs will be posted along the east boundary of the Sentinel Pits when the berming is complete. Figure 1-4 shows the future fencing configuration as a separate layer from the existing fencing.

The existing fencing, combined with additional fencing and berms around the Sentinel Pits will adequately address both cattle and public safety issues. Fencing the entire perimeter of all pits is not necessary, and is not practical. This is due to the steep sandstone benches that both prevent access and require portable drilling rig for fence post installation.

¹ Typical Barbed Wire Fence <http://www.blm.gov/nstc/eng/draw/pdf/02824-1.pdf>

The latter assessment is based on 3 yrs of mine operation and Record of Decision (ROD). "There have been no known instances of public safety issues associated with the unbermed, unfenced, and unsigned pits that existed on the site for over 20 years" prior to mine construction.²

Waste Dumps

The bench widths range from 50-90 feet on the steep slopes of Waste Dump C. Bench heights range from 40-70 feet. Angle of repose ranges from 37-40 degrees. The attached figure details the as-built dimensions. Contour interval = 5 ft.

The waste dumps will be contoured with slopes ranging from 2.5/1 to 3/1. There are 3 objectives.

1. Blend the dumps with surrounding topography to the extent possible. This necessarily involves multiple slope angles.
2. Provide surface drainage where practical (i.e. existing haul road @ center of Dump C).
3. Provide slope breaks, rip rap, and boulders wherever possible.

These objectives will positively assist with erosion control by breaking up and reducing concentrated flows along with related sediment velocities. Reducing sediment velocities drops sediment and reduces erosion. As vegetation begins to take hold, erosion will be further reduced and slopes will become fully stabilized.

Rental rates source is Wheeler Cat in Salt Lake.³

Response to "General comments regarding rates"

Clarification

The Unit Cost Evaluation Worksheet (the worksheet) is an attachment to Table 1. Table 1 and attached worksheet were submitted electronically to DOGM on April 11. Hard copy was received by DOGM April 15. The same information was presented during the meeting on April 18. A follow-up revision to this worksheet and table were submitted by email on April 25.

*The worksheet is referenced on page 41 of the POO. Table 1 and the worksheet were both titled. Table 1 was entitled **Table 1 2008 Interim Bond Estimate and Cash Flow Analysis Rev.1, Lisbon Valley Mining Co, La Sal Utah**. The worksheet was entitled **Interim Reclamation Plan Unit Costs Evaluation Worksheet 4/10/08**.*

² US Bureau of Land Management 1997. Final Record of Decision Environmental Impact Statement Lisbon Valley Copper Project. 26 March 1997.

³ <http://www.wheelercat.com/>

Additional information to support the 0.42/yd cost for dozing Dump B.

The worksheet derived a unit cost of 0.42/yd for grading Dump B as follows. The rental rate for the D10 is 375/hr (Cell G4). This rate is fully loaded rate includes rental, taxes, fuel and operator (Cell G2). The cost per yard [0.42/yd (Cell Y4)] is derived from total yards of cut (Cell S4), dozing distance (Cell T4), hrly production (Cell V4), total hours (Cell W4), and total cost (Cell X4).

Worksheet Revision #1

In response to this comment, the worksheet has been revised. The revision adds three columns to the worksheet for rental, fuel, and operator (Cells G4, H4, I4). The revised worksheet is entitled **Interim Reclamation Plan Unit Costs Evaluation Worksheet Rev.1** (the revised worksheet).

The revised worksheet is attached.

Additional information to support the 0.17/yd cost for growth media Dump B.

Growth media placement on Dump B is 0.19/yd.⁴ CAT scraper unit cost is 270/hr (Cell J6). This cost is detailed on the revised worksheet using a rental cost of 115/hr, [Cell G6 (18,950/mo plus 6.8% tax/176 hrs/mo)], diesel cost of 105 [Cell H6(30gal/hr@3.50/gal)], and operator [Cell I6 (50/hr)].

Additional information to support the 1.00/yd cost for grading Dump C

Grading on Dump C is divided into three subtasks (lines 10-12, 14). D10 unit cost is 375/hr (Cell J10). This cost is detailed on the revised worksheet using a rental cost of 220/hr, [Cell G10 (36,000/mo plus 6.8% tax/176 hrs/mo)], diesel cost of 105 [Cell H10 30gal/hr@3.50/gal)], and operator [Cell I10 (50/hr)]. The selected unit cost of 1.00/yd is the highest of the four line items for grading on Dump C. These costs range from 0.50/yd (Cells AB11, AB12, and AB14) to 1.00/yd (Cell AB10). All dollar fractions are rounded up.

Additional information to support the 0.56/yd cost for growth media placement on Dump C

⁴ LVMC Email 4-25-08

Growth media placement on Dump C Grading on Dump C is divided into two subtasks (lines 18-19). As described above and expanded in the revised worksheet, the scraper unit cost is 270/hr. There are two unit costs for growth media placement on Dump C. The 0.63/yd unit cost⁵ reflects the short haul afforded by the existing growth media stockpile on top of the dump. The 1.15/yd unit cost reflects the longer haul from the Centennial stockpile.

Equipment mobilization was included in Table 1 (Cells G115, 116, 117, 118).

Ponds

The POO (pgs 38, 43-45) has been revised with an expanded description of evaporation of solution inventory on the pad using high evap sprinklers, followed by pan evaporation and sprinkler evaporation of the ponds. Annual pan evaporation in Lisbon Valley is approx 66in. Annual precip is about as compared with 15in. For this reason evaporation is considered a viable solution inventory reduction process.

Page 38 also references the thickness of growth media (12").

The costs associated with grading and growth media placement @0.51/yd and 0.43/yd respectfully were detailed on the worksheet and are expanded on the revised worksheet.

The grading unit cost is based on reducing the ponds to a 2.5/1 slope. This is an approximate 50,000 yd cut (Cell O37), at an average (downhill) dozing distance much less than 150 feet (Cell W37) resulting in a production rate of 750 yds/hr at 75% efficiency (Cell Y37). The growth media unit cost is based on bringing 23,000 yds of growth media (Cell V38) from the stockpile north of the pad [0.6 mile cycle (Cell Q38)], resulting in a production rate of 625 yds/hr (Cell Y38). These production rates and haul distances support the estimated costs previously and currently submitted.

Heap Leach Pad

Unit costs for heap leach reclamation are detailed on the revised worksheet (lines 24-33). Rental costs, diesel costs, labor costs, haul lengths, cycle times, total hrs, total cost, and cost per yard are detailed. Grading unit cost is 0.20/yd (Cell AB25). Growth media spreading is 0.72/yd (Cells AB26, AB31). Overburden has to be hauled with articulated trucks and loaded with a loader from Waste Dump B (3.2 mile cycle). Unit cost for loading is 1.68/yd (Cell AB28). Unit cost for hauling is 1.71/yd (Cell AB30).

Production rates are driven by the location of soil and overburden stockpiles. The location of overburden and growth media stockpiles are shown on Fig 1-4 using numbers which correspond to the revised worksheet. Please refer to the revised worksheet and Fig 1-4.

⁵ LVMC Email 4-25-08

The POO has been expanded to describe leach rinse process, including duration (pgs 43-45).

Source of water for the rinse is groundwater from LVMC's water system. Approx. quantity is 900,000,000 gallons. This quantity was described in Appendix 2 of the POO.

2.5 lbs/ton was the original estimate used to determine the bond in 1998. It is not clear why the two costs are 10% different, nor is it clear if lime will be used. The cost has been increased to reflect 2.75 lbs/ton.

Approximately 13% of the ore will be neutralized during the rinse.

Nine cells will be reclaimed.

Cell G41 of Table 1 includes 4 laborers at 35k/yr for 1.5 yrs. This labor will be used to move piping and sprinklers.

The spreadsheet cell E39 indicates 1,416,000 tons under the As-Built 2008 column. The spreadsheet cell C39 indicates 5.9 M tons under the 1997 Estimate column.

The cost estimate summary for rinse and drain down are included in revisions to the POO and spreadsheet sent by email 4-25-08. This email was sent as a follow up to comments received during the meeting on 4-18-08, and to reflect current increases in scraper rates.

Per 4-25-08 email:

- *Increase scrapers rental rate from 240-270/hr*
- *Revise POO text to reflect same*
- *Number the pages in the POO*
- *Revise spreadsheet to escalate line items rather than totals. This is easier to follow when reading the POO.*
- *Several minor text changes grammar-related*

The current POO includes the above-referenced revisions.

Thicknesses of clay, overburden, and growth media are itemized in cells A49-A54 of the spreadsheet. These same numbers have been added to the POO.

"Final design of the facility" (assume page 38?) is referenced in the context of surface water diversion. Additional surface water diversion channels would have been needed to divert storm water around the leach pad if the mine had expanded to original plan (i.e. Stages 4-5). This is no longer an issue. Surface diversion channels are in place for Stage III, which is the present extent of the leach pad.

The expanded description of reclamation activities in the text was intended to describe how unit costs vary in response to as-built conditions, material stockpiles, and haul distances at the primary facilities. It was not intended to include all material cuts and fills. This was the intended purpose of Table 1. All material estimates are included in Table 1.

The POO text has been revised to inform the reader that volumes per facility, including overburden volumes, are detailed in Table 1.

The narrative referenced "approx 450,000 yds" of grading work and Table 1 references 475,000 yds of grading work. The estimate was recalculated to verify 475,000 as the correct estimate. The POO text has been changed to reflect this correction.

Plant and Crusher Area unit costs have been added to the POO.

The hilfiker wall is a standard 24" welded wire wall. Welded wire mats are used to reinforce, and contain aggregate as a vertical face. The wire mats extend approximately 30 feet into the wall. The hilfiker demolition approach will be described and included in the plant demolition estimate. Photos are attached.

Haul Roads

The POO submitted April 11, 15, and 18 all reference costs for placement of growth media and reseeding

Scrapers are used to spread growth media on haul roads. Reclamation equipment is identified on pg 12 of the POO.

The POO has been revised to identify cubic yards of growth media on haul roads.

Sentinel West Haul road is approximately 4.8 acres.

Erosion of haul roads is addressed by surface water diversion, road design (i.e. composition) and berm design. Presently, there are no erosion issues. Roads and berms contain a large aggregate/boulder fraction. Should erosion become a reclamation issue, it can be addressed during reclamation.

Map

The following revisions have been made to Fig 1-4.

Pits are labeled

Unit Cost Evaluation Worksheet is cross referenced.

There are two very rough jeep roads above the Sentinel West pit that could allow access by jeep for a very motivated individual. These roads will be bermed. The same roads cannot access Sentinel East Pit.

Existing fencing has been added to planned fencing on Figure 1-4.

Cross hatching (steep slopes) is labeled.

Legend colors are revised.

Waste Dump C is no longer cut off

Haul roads planned for reclamation in 2008 are colored red and called out in the legend (17 acres in red).

Please call Lantz Indergard at (435) 686 9950 #226 if additional information is required.

Sincerely,

Lantz Indergard PG
Environmental Manager
Lisbon Valley Mining Co LLC

| Based on Details of Final Reclamation - original estimate prepared by The Winters Group 1997 | | | | | | | | | | | | | 1997 Estimate | 2008 As-Built Measurement | | 2008 100.00% | 2009 103.20% | 2010 106.50% | 2011 109.91% | 2012 113.43% |
|--|---------|-----------|---------|-----------|-------|--------------|--------------|--------------|--------------|---------------------|----------------|-----------------------------|---------------|---------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|
| ACTIVITY/ACREAGE (ref pg 6 2008 Plan of Operations) | AREA | QUANTITY | AREA | QUANTITY | UNITS | \$/Unit 2008 | 2008 Cost | Leach Copper | Leach Copper | Begin Rinse in June | Complete Rinse | Reclaim Pad, Ponds & Dump B | | | | | | | | |
| Waste Dump A- 190 acres (not built) | | | | | | | | | | | | | | | | | | | | |
| area of top | 456,444 | | 0 | | SY | | | | | | | | | | | | | | | |
| area of slope | 462,680 | | 0 | | SY | | | | | | | | | | | | | | | |
| scarify top (flat) area | | 456,444 | | 0 | SY | | \$ - | | | | | | | | | | | | | |
| 12 inches soil on top of dump | | 152,148 | | 0 | CY | | \$ - | | | | | | | | | | | | | |
| 12 inches soil on slope | | 154,227 | | 0 | CY | | \$ - | | | | | | | | | | | | | |
| seed entire surface | | 190 | | 0 | acre | | \$ - | | | | | | | | | | | | | |
| Total-waste dump "A" reclamation | | | | | | | \$ - | | | | | | | | | | | | | |
| Waste Dump B- 46 acres | | | | | | | | | | | | | | | | | | | | |
| area of the top | 197,222 | | 146,500 | | SY | | | | | | | | | | | | | | | |
| area of the slope | 258,240 | | 62,500 | | SY | | | | | | | | | | | | | | | |
| grade slopes | 0 | 0 | 150,000 | | CY | 0.42 | \$ 62,500 | | | | | \$70,892 | | | | | | | | |
| scarify top (flat) area | | 197,222 | | 146,500 | SY | 0.08 | \$ 12,086 | | | | | \$13,709 | | | | | | | | |
| 12 inches soil on top of dump | | 65,741 | | 48,833 | CY | 0.19 | \$ 9,278 | | | | | \$10,524 | | | | | | | | |
| 12 inches soil on slope | | 86,080 | | 20,833 | CY | 0.19 | \$ 3,958 | | | | | \$4,490 | | | | | | | | |
| seed entire surface | | 94 | 46 | | acre | 174.00 | \$ 8,004 | | | | | \$9,079 | | | | | | | | |
| Total-waste dump "B" reclamation | | | | | | | \$ 96,827 | | | | | | | | | | | | | |
| Waste Dump C- 93 acres | | | | | | | | | | | | | | | | | | | | |
| area of the top | 344,222 | | 127,800 | | SY | | | | | | | | | | | | | | | |
| area of the slope | 238,633 | | 140,000 | | SY | | | | | | | | | | | | | | | |
| grade slopes | 0 | 0 | 196,000 | | CY | 1.00 | \$ 195,000 | 195,000 | | | | | | | | | | | | |
| scarify top (flat) area | | 344,222 | | 127,800 | SY | 0.25 | \$ 31,950 | 31,950 | | | | | | | | | | | | |
| 12 inches soil on top of dump | | 114,741 | | 35,112 | CY | 0.63 | \$ 22,121 | | \$22,828 | | | | | | | | | | | |
| 12 inches soil on slope | | 79,944 | | 46,667 | CY | 1.16 | \$ 53,667 | | \$55,364 | | | | | | | | | | | |
| seed entire surface | | 120 | 93 | | acre | 174.00 | \$ 16,162 | | \$16,700 | | | | | | | | | | | |
| Total-waste dump "C" reclamation | | | | | | | \$ 318,919 | | | | | | | | | | | | | |
| Rinse Heap- 12%of total ore neutralized; rinsing & evaporation for 18 months (ref. Section --, 2008 Plan of Operations) | | | | | | | | | | | | | | | | | | | | |
| Rinse Heap- 12%of total ore neutralized; rinsing & evaporation for 18 months | | | | | | | | | | | | | | | | | | | | |
| lime (2.75 lbs/ton)x(\$0.025/lb)x(5.9M ton) | | 5,900,000 | | 1,416,000 | ton | 0.07 | \$ 96,288 | | | \$34,183 | \$75,141 | | | | | | | | | |
| labor, power & pump for draindown & evaporation for 18 months | | | | | | | \$ - | | | | | | | | | | | | | |
| Subtotal for heap rinse & evaporation | 1 | 448,640 | | 1 | lot | 515,520 | \$ 515,520 | | | \$183,014 | \$402,303 | | | | | | | | | |
| | | | | | | | \$ 611,808 | | | | | | | | | | | | | |
| Heap Leach Pad- 190 Acres | | | | | | | | | | | | | | | | | | | | |
| area of the top | 788,558 | | 544,696 | | SY | | | | | | | | | | | | | | | |
| area of the slope | 441,653 | | 119,486 | | SY | | | | | | | | | | | | | | | |
| grade slopes | 0 | 0 | 475,000 | | CY | 0.21 | \$ 98,958 | | | | | \$112,246 | | | | | | | | |
| 12 inches clay/24 inches soil cap on top | 12 | 262,590 | 24 | 362,768 | CY | 0.72 | \$ 261,193 | | | | | \$296,265 | | | | | | | | |
| 12 inches clay/24 inches soil cap on top | 12 | 147,070 | 24 | 79,578 | CY | 0.72 | \$ 57,296 | | | | | \$64,989 | | | | | | | | |
| 24 inch crushed rock on top | 24 | 625,180 | 24 | 725,535 | CY | 1.71 | \$ 1,249,665 | | | | | | | | | | | | | |

Interim Reclamation Pl.

| Direct Costs | Primary Areas | Work | Facility | Location | Equipment | Rental Rate, including tax, based on 176hrs/mo | Diesel cost/hr | Operator | Loaded equipment rate incl fuel, taxes, & operator | From | To | Location | Objective |
|----------------------|-----------------------|---|----------|----------|-----------|--|----------------|----------|--|-------------|-----------------|---------------|--|
| Dump B | Grade | Dump B | 6 | D10 | 220 | | 105 | 50 | 375 | crest | all slopes | | Grade all slopes 3 to 1 or 2.5 to 1 depending on surrounding topography |
| | Rip | Dump B | 6 | D10 | 220 | | 105 | 50 | 375 | top | top | | Rip top for reveg |
| | GM Transport | Dump B | 8 | 627 | 115 | | 105 | 50 | 270 | 6 | 6 | | GM to Dump B |
| | Reseed | Dump B | 8 | | | | | | | 9 | 6 | | Additional GM resource if needed |
| Dump C | Optional GM Transport | Dump B | 8 | 627 | 115 | | 105 | 50 | 270 | 0 | | | |
| | Grade | Dump C | 1 | D10 | 220 | | 105 | 50 | 375 | NW crest | NW Toe | | Re-slope NW face 3 to 1. Include breaks in slope to mimic topography. Pu overlay map to avoid exposing underlying rim. OK to convert haul road to the push after volumes are better de |
| | Grade | Dump C | 2 | D10 | 220 | | 105 | 50 | 375 | South Crest | South Slope | | Fill haul road and tie into existing slope. Work with topo overlay to avoid a |
| | Grade | Dump C | 3 | D10 | 220 | | 105 | 50 | 375 | SE Crest | SE Slope | | Grade into existing slope. Include breaks. |
| | Rip and Track Pack | Dump C | 3 | D10 | 220 | | 105 | 50 | 375 | SE Slope | SE Slope | | Rip SE slope at staked intervals |
| | Grade | Dump C | 4 | D10 | 220 | | 105 | 50 | 375 | South Toe | Retention Basin | | Create diversion channel at toe of dump. Tie into Sent haul roads and use |
| | Rip | Dump C | 5 | D10 | 220 | | 105 | 50 | 375 | top | top | | Retention basin. Rip top of dump for reveg and/or GM |
| | | | | | | | | | 0 | | | | |
| | GM Transport | Dump C | 5 | 627 | 115 | | 105 | 50 | 270 | 5 | 5 | | Spread 60,000 yd stockpile laterally on top |
| | GM Transport | Dump C | 5 | 627 | 115 | | 105 | 50 | 270 | 25 | 25 | dump slopes | GM on slopes |
| | GM Transport | Dump C | 5 | 627 | 115 | | 105 | 50 | 270 | 7 | 7 | dump slopes | Additional GM resource if needed |
| Leach Pad | Reseed | Dump C | | | | | | | | | | | |
| | Rinse | | | | | | | | | | | | |
| | Labor | | | | | | | | | | | | |
| | Grade | Leach Pad | 10 | D10 | 220 | | 105 | 50 | 375 | 10 | 10 | | Grade slopes |
| | Cap Placement | Leach Pad | 10 | 627 | 115 | | 105 | 50 | 270 | 26 | 10 | | Z coverage |
| | | | | | | | | | 0 | | | | |
| | Load Waste Rock | Leach Pad | 10 | 960 | 91 | | 105 | 50 | 246 | 6 | 6 | | Load haul trucks |
| Misc Areas | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | Waste Placement | Leach Pad | 10 | 740 | 95 | | 105 | 50 | 250 | 6 | 10 | | Z coverage |
| | GM Placement | Leach Pad | 10 | 627 | 115 | | 105 | 50 | 270 | 26 & 27 | 10 | | T coverage |
| | Reseed | Leach Pad | 10 | | | | | | | | | | |
| Pond Area | | | | | | | | | | | | | |
| | grade | All ponds | 11 | D10 | 220 | | 105 | 50 | 375 | | | | Grade |
| | GM Placement | All ponds | 11 | 627 | 115 | | 105 | 50 | 270 | 27 | 11 | | GM over pond footprint |
| Plant & Crusher Area | Reseed | | | | | | | | | | | | |
| | grade | SX | 12 | D10 | 220 | | 105 | 50 | 375 | | | | Grade |
| | grade | Primary | 13 | D10 | 220 | | 105 | 50 | 375 | | | | Push hillier wall down to NW. Load 740s for ponds backfill. |
| | Rip | All (disturbed footprint of SX, maint. lab, truck shop etc) | 12 | D10 | 220 | | 105 | 50 | 375 | 12 | 13 | | Rip for reveg |
| | Reseed | | 12 | 627 | 115 | | 105 | 50 | 270 | 12 | 13 | | GM over plant area as needed |
| Haul Roads | | | | | | | | | | | | | |
| | Grade | Sent W Haul Rd | 14 | D10 | 220 | | 105 | 50 | 375 | County Rd | pit boundary | | Grade berm from west to east, finish above grade creating northerly drainage |
| | Rip | Sent W Haul Rd | 14 | D10 | 220 | | 105 | 50 | 375 | County Rd | pit boundary | | slope. Use north extent of road as much for berm around pit to retention ba |
| | | | | | | | | | | | | | rip for reveg |
| | Grade | Sent E Ramp | 15 | D10 | 220 | | 105 | 50 | 375 | pit | Dump C | | Grade south portion of road towards dump, extending toe of Dump C into a |
| | Rip | Sent E Ramp | 15 | D10 | 220 | | 105 | 50 | 375 | pit | Dump C | | rip for reveg |
| | Grade | North GTO Haul Rd | 16 | D10 | 220 | | 105 | 50 | 375 | south | north | | Grade berms to side, reduce slopes as much as possible. Cannot achieve |
| | Rip | North GTO Haul Rd | 16 | D10 | 220 | | 105 | 50 | 375 | | | | rip for reveg |
| | Place GM | North GTO Haul Rd | 16 | 627 | 115 | | 105 | 50 | 270 | | | | |
| | Grade | South GTO Haul Rd | 17 | D10 | 220 | | 105 | 50 | 375 | | | | Gradesrip road east toward the dump. Tie with slope. |
| | Rip | South GTO Haul Rd | 17 | D10 | 220 | | 105 | 50 | 375 | | | | rip for reveg |
| | Place GM | South GTO Haul Rd | 17 | 627 | 115 | | 105 | 50 | 270 | | | | |
| | Rip | GTO Ramp in Pit | 18 | D10 | 220 | | 105 | 50 | 375 | | | | rip for reveg |
| | Grade | Phase II Haul | 19 | D10 | 220 | | 105 | 50 | 375 | | | | Grade toward dump |
| | Rip | Phase II Haul | 19 | D10 | 220 | | 105 | 50 | 375 | | | | rip for reveg |
| | Place GM | Phase II Haul | 19 | 627 | 115 | | 105 | 50 | 270 | | | | |
| | Grade | Water Stand to Primary | 20 | D10 | 220 | | 105 | 50 | 375 | | | | Push road down to NW. |
| | Rip | Water Stand to Primary | 20 | D10 | 220 | | 105 | 50 | 375 | | | | rip for reveg |
| | Place GM | Water Stand to Primary | 20 | 627 | 115 | | 105 | 50 | 270 | | | | |
| | Grade | Phase I to water stand intersection | 21 | D10 | 220 | | 105 | 50 | 375 | | | | Blend with grade |
| | Rip | Phase I to water stand intersection | 21 | D10 | 220 | | 105 | 50 | 375 | | | | rip for reveg |
| | Place GM | Phase I to water stand intersection | 21 | 627 | 115 | | 105 | 50 | 270 | | | | |
| | Grade | Phase I to Dump C intersection | 22 | D10 | 220 | | 105 | 50 | 375 | | | | Blend with grade |
| | Rip | Phase I to Dump C intersection | 22 | D10 | 220 | | 105 | 50 | 375 | | | | rip for reveg |
| | Place GM | Primary to heap leach | 23 | D10 | 220 | | 105 | 50 | 375 | | | | Grade berms |
| | Grade | Primary to heap leach | 23 | D10 | 220 | | 105 | 50 | 375 | | | | rip for reveg |
| | Rip | Primary to heap leach | 23 | D10 | 220 | | 105 | 50 | 375 | | | | rip for reveg |
| Rip | Centennial Ramp | 24 | D10 | 220 | | 105 | 50 | 375 | | | | rip for reveg | |
| Rip | North Pad Access Rd | 28 | D10 | 220 | | 105 | 50 | 375 | | | | rip for reveg | |

